

In the claims:

Kindly cancel claims 1-16 inclusive and substitute the following claims:

1-16 (canceled)

17. (New) A transmission power system that contains a pair of mating screws, having mating threads, wherein:

the axial thread profile of the first screw is defined by a counternovolute located inside of the pitch diameter of the first screw, on one of the flanks, and another counternovolute located inside the pitch diameter, on the other flank of the thread;

the axial thread profile of the second screw is defined by a novolute located outside of the pitch diameter; on one flank of the thread, and another novolute located outside of the pitch diameter, on the other flank of the thread.

18. (New) The transmission power system of Claim 17, wherein the first screw, by means of the helical line defined by the point where the counternovolute intersects the pitch diameter, generates the novolute profile of the second screw.
19. (New) The transmission power system of Claim 17, wherein the contact between the threads is defined by a line, which begins at the intersection between the pitch diameter of the first screw and the outermost diameter of the second screw, continues along the circumference of the pitch diameter of the first screw until it intersects with the line of centers.
20. (New) The transmission power system of Claim 17, wherein said screws have parallel shafts.

21. (New) The transmission power system of Claim 17, wherein, the mating screws are coplanar or not.
22. (New) The transmission power system of claim 17, wherein the helical line belonging to the first screw, which generates the novolute surfaces, has a larger diameter than the pitch diameter.
23. (New) The transmission power of Claim 17, wherein the helical line, belonging to the first screw which generates the novolute surfaces, has a smaller diameter than the pitch diameter.
24. (New) The transmission power system of Claim 17, wherein the helical line belonging to the first screw, which generates the novolute, is replaced by a solid helical profile with a curve section.
25. (New) The transmission power system of Claim 17, wherein the flanks of the axial profile are asymmetrical.
26. (New) The transmission power system of Claim 17, wherein the screws have variable thread pitches.
27. (New) The transmission power system of Claim 17, wherein the screws are manufactured with the variable thread heights throughout the length of the piece.
28. (New) The transmission power system of Claim 17, wherein the load carrying capacity of the threads is increased by increasing the base height of the thread beyond the height required to accommodate the first and second screw.

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29. (New) A screw manufacturing process to produce a screw according to any one of Claims 17-28 wherein roughly threaded screws are mated and worked under a small load, and lubricated with a bath containing abrasive particles.
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